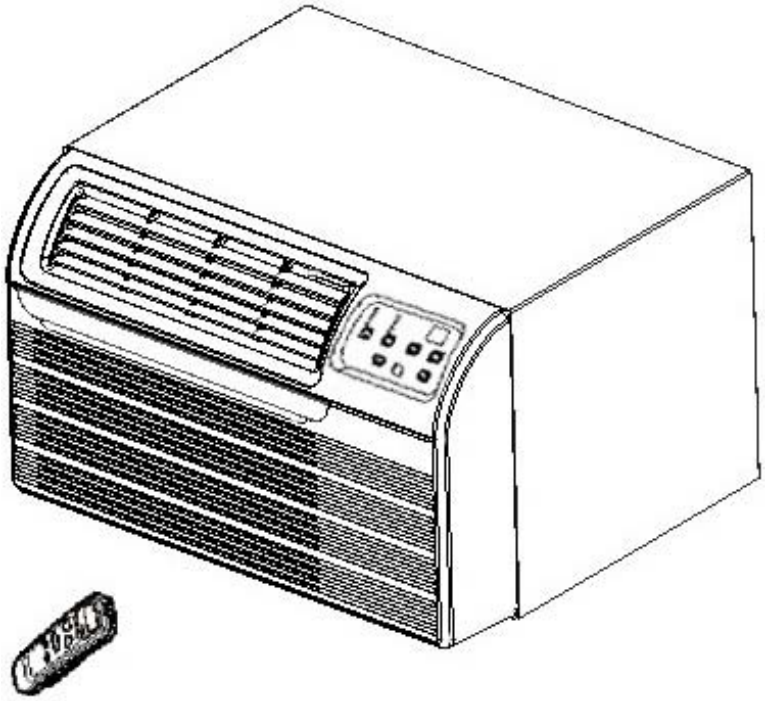
Thru-the-Wall Room Air Conditioner with optional Electric Heat

Installation Instructions and Owner's Manual

This manual must be left with the owner of the equipment.



Model :
KTW-08/10/12/12H

Thank you for selecting Soleus Air.
To ensure proper operation, please read this manual & keep it for future reference.

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WARNING

HIGH VOLTAGE!
Disconnect ALL power before servicing or installing. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

IMPORTANT NOTE TO THE OWNER

This equipment is to be serviced by professionally trained personnel only. If this equipment is improperly installed, adjusted or altered by an unqualified person, a safety hazard may result.

IMPORTANT NOTE TO THE SERVICER

Read this manual and familiarize yourself with the specific items which must be adhered to before attempting to service this unit. The precautions listed in this manual should not supersede existing practices but should be considered as supplemental information.

Transportation Damage

All units are securely packed in shipping containers approved by the National Safe Transit Association. The carton should be checked upon arrival for external damage. If damage is found, immediately make a written request for inspection by the carrier's agent.

In the event of damage:

1. Note on the delivery receipt any visible damage to shipment or container.
2. Notify carrier promptly and request an inspection.
3. File the claim with the following supporting documents within the six month statute of limitations.
   a. Original Bill of Lading, certified copy, or indemnity bond.
   b. Original paid freight bill or indemnity.
   c. Original invoice or certified copy, showing trade and other discounts or reductions.
   d. Copy of the inspection report issued by carrier's representative at the time damage is reported to the carrier.

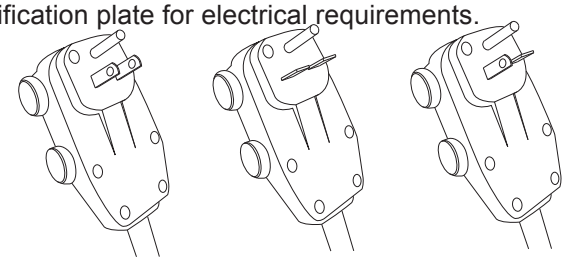
The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

Unpacking The Unit

1. Cut the carton banding and open the carton.
2. Remove the literature, hardware pack, upper styrofoam shipping blocks, and styrofoam corner posts.
3. Remove the front assembly.
4. Lift the unit from the remaining carton.
5. Dispose of the cardboard and styrofoam at an approved Recycle Center. Check all contents for damaged or missing parts. In case of concealed damage, notify the carrier as soon as possible—preferably within 5 days. Refer to step 3 of the *Transportation Damage* section if damage or missing parts are noted.

Operating Instructions

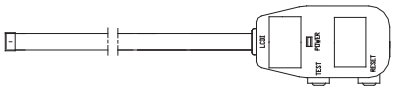
Check the data specification plate and ensure the proper voltage and current rating for the type of power plug on the unit is available. DO NOT REMOVE THE GROUNDING PRONG FROM THE POWER CORD. See Figure 1 for the types of acceptable plugs. Do not use an extension cord for the installation of this product. Refer to the data specification plate for electrical requirements.



115V 15 amp **230V 15 amp** **230V 20 amp**

Figure 1

- **LCDI or AFCI Power Cords** - Underwrites Laboratories and the National Electric Code (NEC) now require power cords that sense current leakage and can open the electrical circuit to the unit on units rated at 250 volts or less. In the event that unit does not operate, check the reset button located on or near the head of the power cord as part of the normal troubleshooting procedure.



LCDI power Cord

VOLTAGE MEASUREMENTS

Before connecting the unit, measure the supply voltage. Voltage must fall within the voltage utilization range given in Table 1.

Operating Voltage		
Unit Voltage Rating	Voltage Utilization Range	
	Minimum	Maximum
230/208	187	253
115	103	126

Table 1
Operating Voltage

WARNING

To prevent electrical shock, property damage, personal injury, or death, do not remove grounding prong from plug. Follow all operating instructions.

Installation Instructions

To ensure that the unit operates safely and efficiently, it must be installed, operated, and maintained according to these installation and operating instructions and all local codes and ordinances, or, in their absence, with the latest edition of the National Electrical Code. The proper installation of this unit is described in the following sections. Following the steps in the order presented should ensure proper installation.

SLEEVE INSTALLATION

In order for condensate water to drain properly inside the unit, the sleeve must be installed properly:

- Level from right to left.
- A slight downward pitch from the indoor side to the outdoor side as shown in Figure 3.

Refer to the Installation Instructions supplied with the wall sleeve for a complete description of the installation procedure.

NOTE: *Wall sleeve (PBWS01A) is not shipped with chassis and must be purchased separately.*

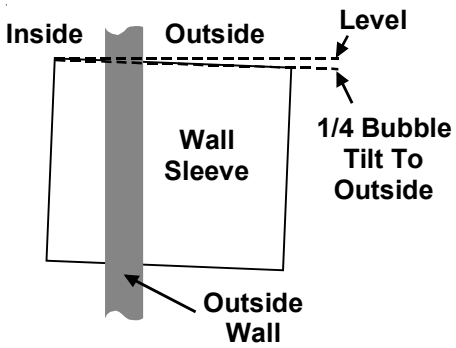


Figure 2

CHASSIS INSTALLATION

1. Remove front grille. See Figure A.

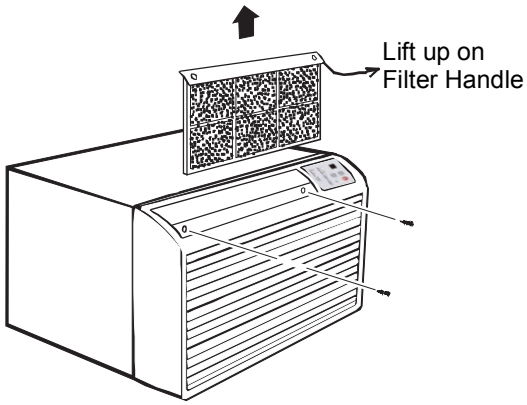
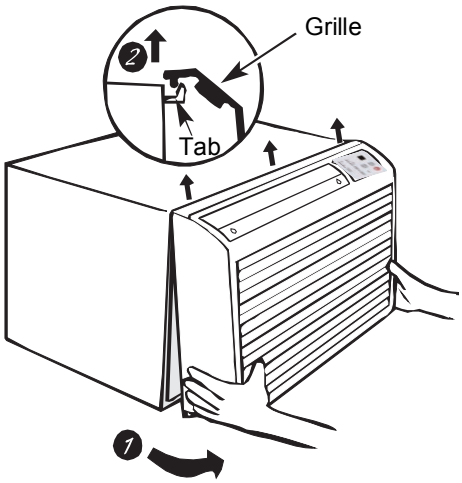


Figure A

The front grille can be removed for more thorough cleaning or to make the model and serial numbers accessible. To remove, pull the filter out and remove the two grille screws.



Pull the grille out from the bottom and lift up from the tabs on the top of the case.

2. Remove the grounding screw and wire next to the grounding symbol on right side of chassis control panel (Figure 3). Attach other end of ground wire to the hole in the bottom right side of the sleeve with #8 x 3/8" blunt point sheet metal screw. The hole on the sleeve is indicated by grounding symbol on the sleeve. Slide chassis part of the way into the sleeve and reattach the ground wire back to the hole on the right side on the control panel area next to the grounding symbol.

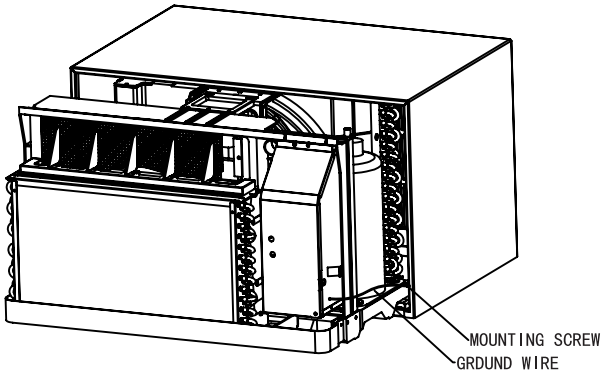


Figure 3

3. Remove shipping pads inside air conditioner next to compressor. (See Figure B.)

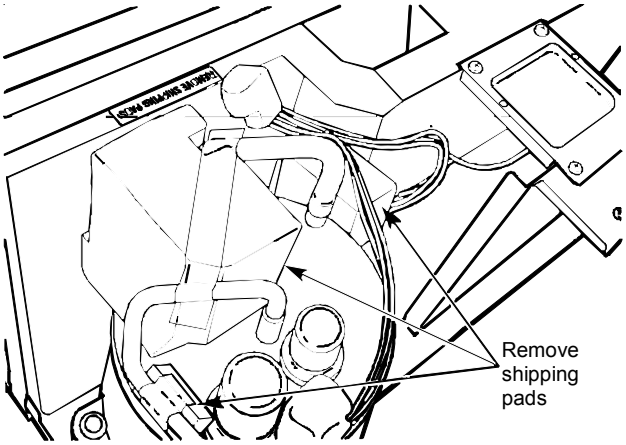


Figure B

4. Carefully slide the chassis into the sleeve. Ensure that the ground wire is not pinched or in the path of the condenser fan.
5. Loosen locking plate screw and rotate tab with tab behind wall case flange (See Figure C) then tighten locking plate screw.

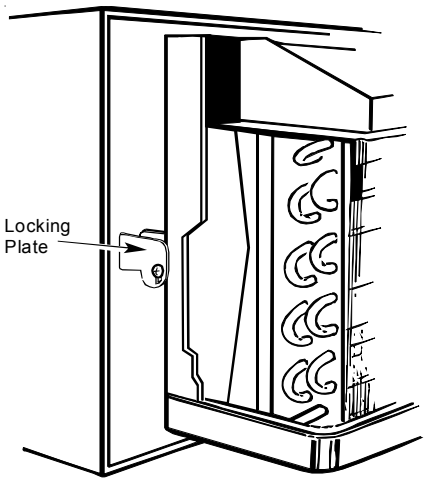


Figure C

6. If outlet is on the left side of the unit. route power cord as shown in Figure D.

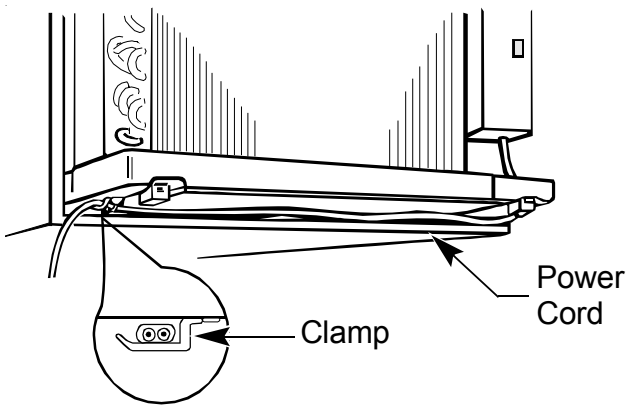
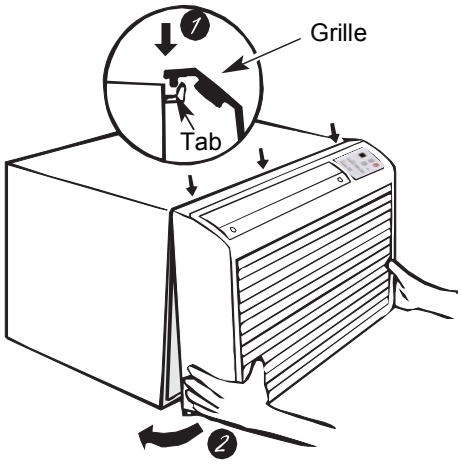


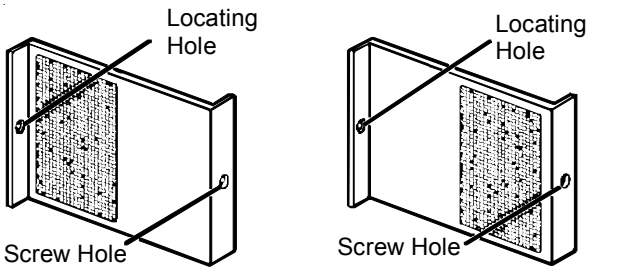
Figure D

To replace front grille:



Hook the tabs on the front grille even with the tabs on the case and snap into place. Replace the screws and filter. Refer to Page 4, Figure A.

VENT CONTROL AND AIR DIRECTION (See Figure E)
The vent control is located behind the front grille on the right side of the air discharge area. When set at **CLOSE** only the air inside the room will be circulated and conditioned. When set at **OPEN**, some inside air is exhausted outside.



OPEN position
(Mesh end toward back)

CLOSE position
(Mesh end toward front)

Figure E

To open or close the vent:

1. Remove the front grille.
2. Remove the vent card screw.
3. Remove the vent card, turn it over and replace it by locating rear hole in card over locating pin inside air discharge and reattaching screw at front.

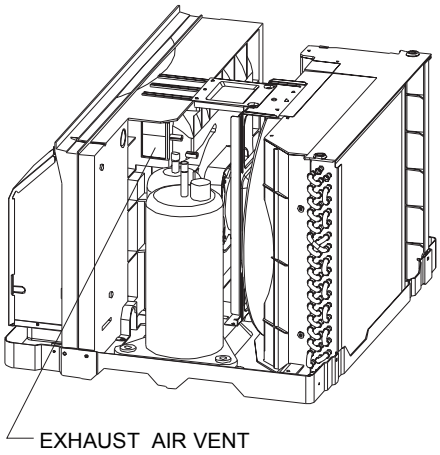
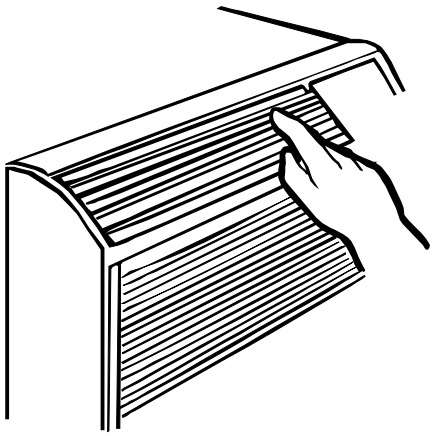


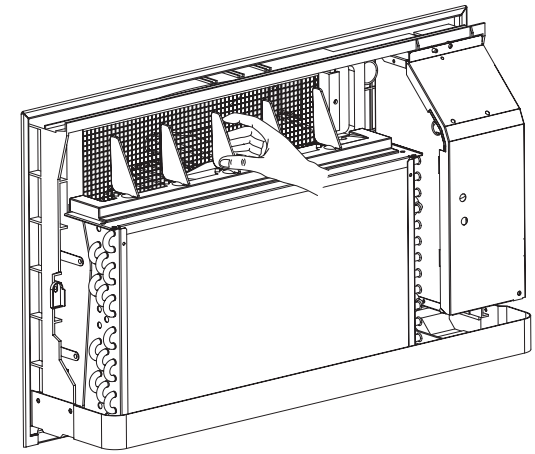
Figure 4

AIR DIRECTION:

Horizontal louvers on the front grille let you control the air direction up and down.



Remove the front grille to adjust the vertical louvers side-to-side to direct the air left or right.



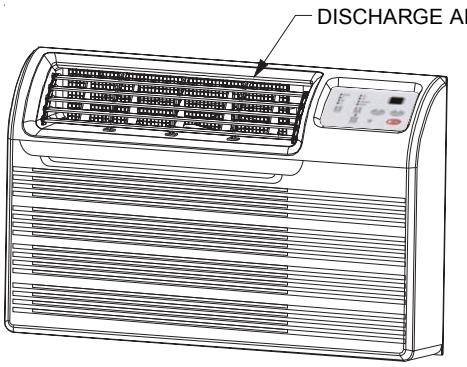


Figure 5

IMPORTANT NOTES:

1. The unit is equipped with a rubber-grommet-mounted compressor. These grommets are factory set and require no adjustment.
2. Obstruction to air flow must be checked and removed. Check the indoor and outdoor grilles for obstructions. The unit must be located where curtains, furniture, trees, or other objects do not block air flow to and from the unit. If air is obstructed and/or deflected back into the unit, the air conditioner's compressor may cycle on and off rapidly. This could cause damage to the compressor.

Wiring

Before wiring the unit, please review the following warnings and cautions.

WARNING

To avoid the risk of electrical shock, personal injury or death, do not service this unit without first opening all disconnects and/or removing the unit cord set plug from the wall outlet.

WARNING

To avoid the risk of electrical shock, personal injury, or property damage, do not use an extension cord with this unit.

WARNING

To avoid the risk of fire, property damage, or personal injury, use only copper conductors.

WARNING

To avoid the risk of personal injury, wiring to the unit must be properly polarized and grounded.

WARNING

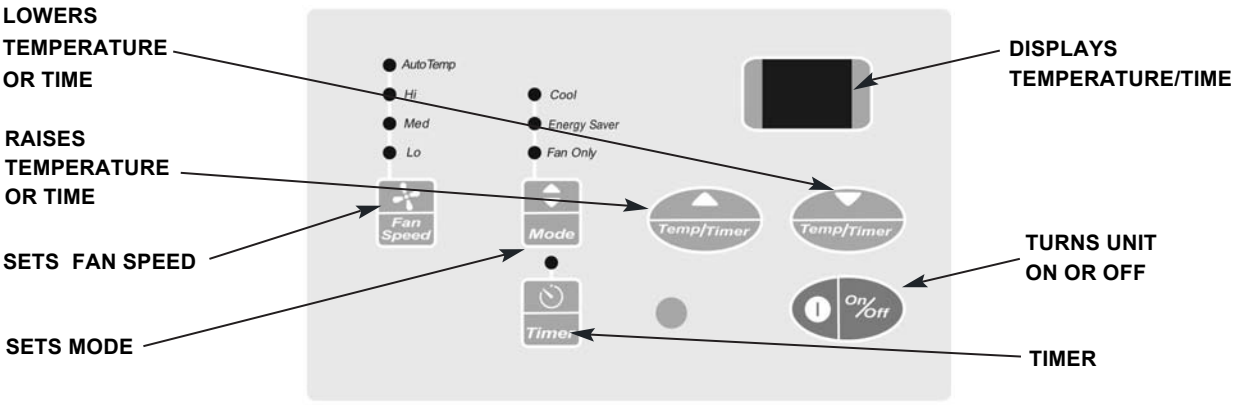
This air conditioner is not meant to provide unattended cooling or life support for persons or animals who are unable to react to the failure of this product.

The failure of an unattended air conditioner may result in extreme heat in the conditioned space causing overheating or death of persons or animals. Take proper precautions to avoid unattended operation.

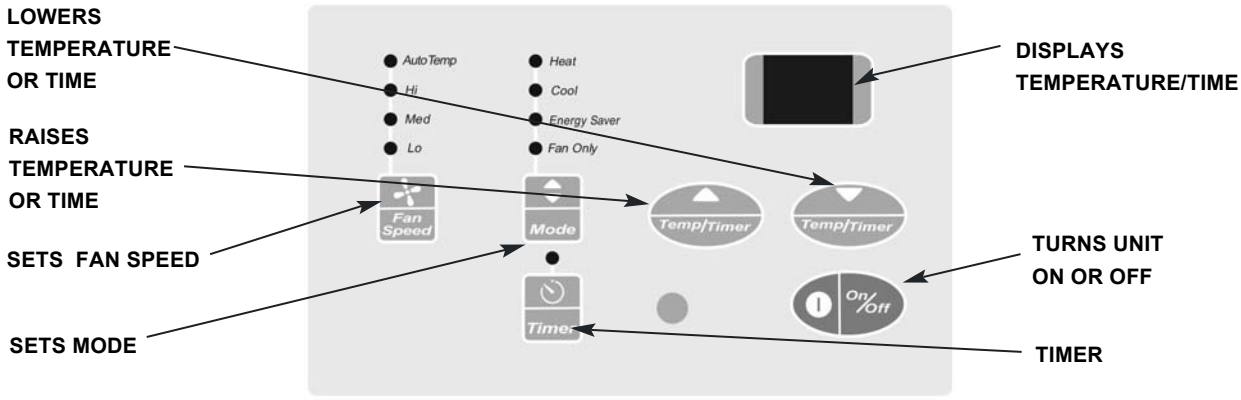
Air Conditioner Features

ELECTRONIC CONTROL OPERATING INSTRUCTIONS

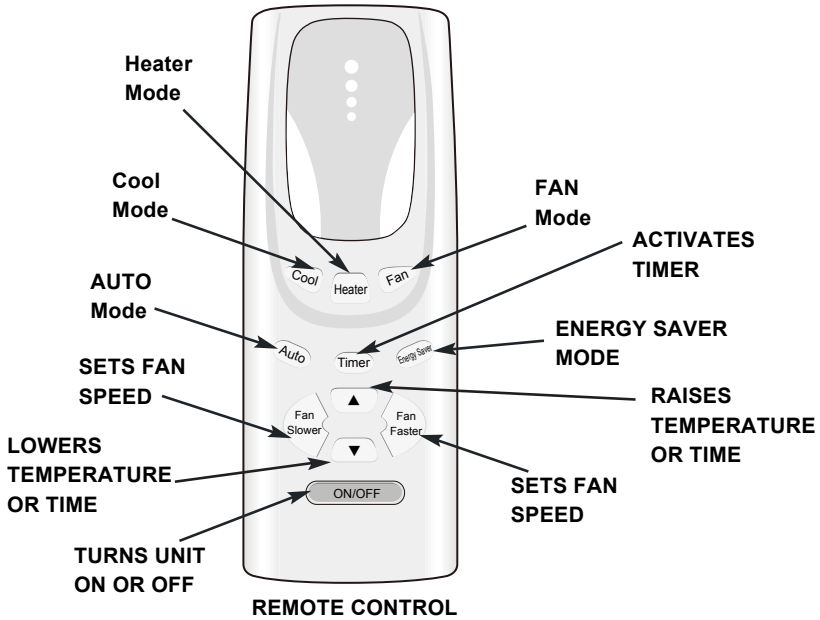
Before you begin, thoroughly familiarize yourself with the control panel and remote as shown below and all its functions. Then follow the symbol for the functions you desire. The unit can be controlled by the touch pad alone or with the remote.



COOL UNIT



ELECTRIC HEATER UNIT

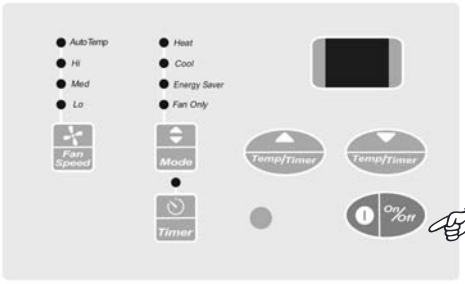


REMOTE CONTROL

NOTE: The remote control will work normally after reset 5 senconds.
Batter Size: AAA
WARRING: Do not Mix Old And New Batteries. Do Not Mix Alkaline, Standare (Carbon-Zinc). Or Rechargeable (Nichel-Cadmium) Batteries.

Air Conditioner Features (continued)

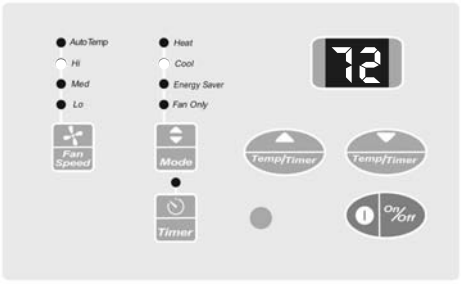
TO TURN UNIT ON:



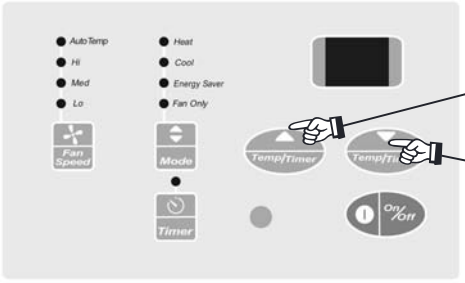
DO THIS:

PRESS ON/OFF BUTTON

YOU WILL SEE:



TO CHANGE TEMPERATURE SETTING:

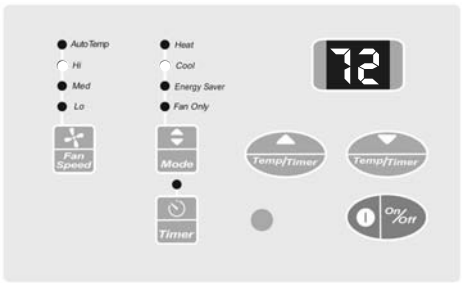


DO THIS:

PRESS TO RAISE

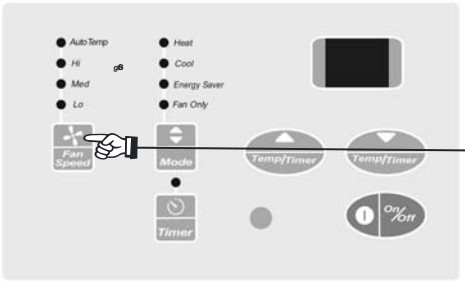
PRESS TO LOWER

YOU WILL SEE:



Note: Tap or hold either up(^) or down(v) button until the desired temperature is seen on display. This temperature will be automatically maintained anywhere between 60F (16°C) and 90F (32°C) for cooling mode. The Temperature will be automatically maintained anywhere between 55F (13°C) and 80F (27°C) for heating mode. If you want the display to read the actual room temperature, "Select the fan only mode".

TO CHANGE FAN SPEEDS:



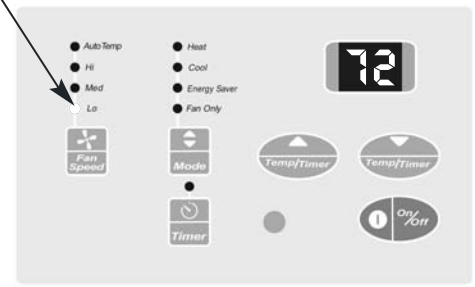
DO THIS:

PRESS FAN SPEED BUTTON

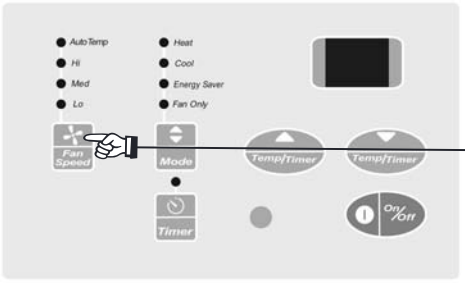
SELECT SPEED

LIGHT ON

YOU WILL SEE THE SPEED CHOSEN:



TO USE AUTO FAN FEATURE:



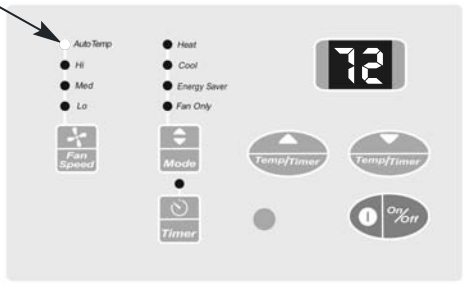
DO THIS:

PRESS FAN SPEED BUTTON

SELECT AUTO FAN

LIGHT ON

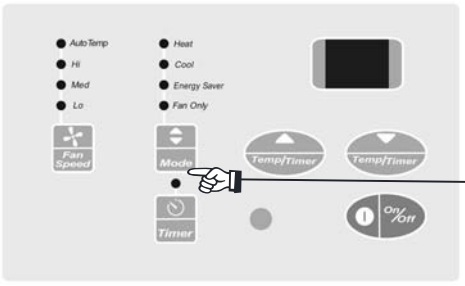
YOU WILL SEE:



Note: The fan speed will begin in HI, then adjust to MED and LO as the room temperature conditions indictates. For example in cooling, if the room doesn't get too warm it will stay at LO. If the room temperature rises quickly, such as a door being opened, it will automatically go to HI speed. The fan speeds will adjust back to LO as the room returns to the original set temperature.

Air Conditioner Features
(continued)

TO OPERATE ON FAN ONLY:



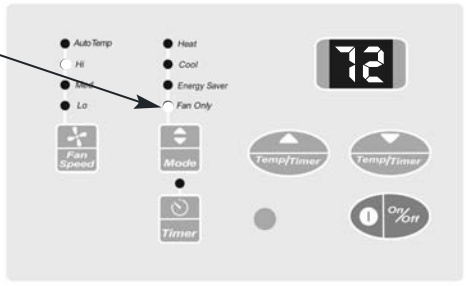
DO THIS:

PRESS
MODE BUTTON

CHOOSE
FAN ONLY

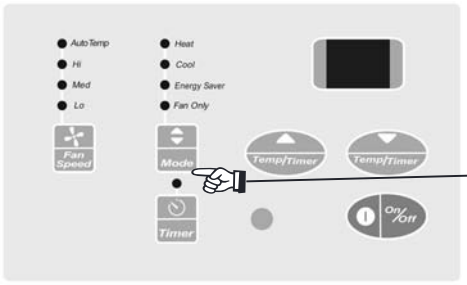
LIGHT ON

YOU WILL SEE:



Note: Use this function only when cooling is not desired, such as for room air circulation. You can choose any fan speed you prefer,EXCEPT AUTO FAN.
During this function, the display will show the actual current temperature, not the set temperature as in the cooling mode.

TO USE THE ENERGY SAVER FEATURE:



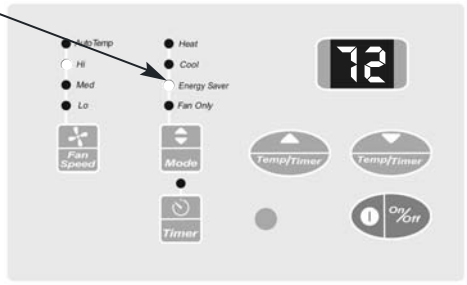
DO THIS:

PRESS
MODE BUTTON

CHOOSE
ENERGY SAVER

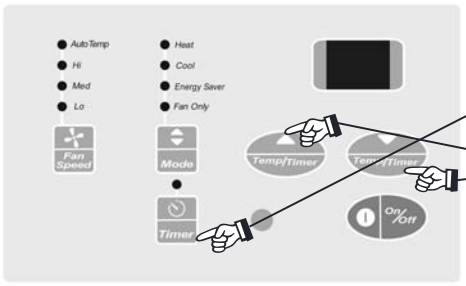
LIGHT ON

YOU WILL SEE:



Note: In this mode, the fan will continue to run for 3 minutes after the compressor shuts off. The fan then cycles on for 2 minutes at 10 minute intervals until the room temperature is above the set temperature, at which time the unit cooling system starts again.

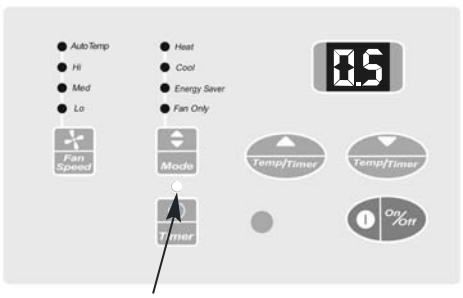
TIMER-DELAY START/STOP FEATURE:



FIRST DO THIS:
PRESS TIMER BUTTON

THEN DO THIS:
PRESS TEMP/TIMER BUTTON

YOU WILL SEE THE TIME CHOSEN:



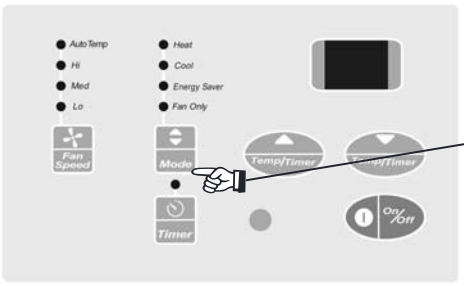
LIGHT ON

Note 1: For Delay Stop, the unit must be in the ON position.
Note 2: For Delay Start, the unit must be in the OFF position.

To adjust timer setting, tap or hold the UP arrow (∧) or DOWN arrow (v) to change the delay time by .5 hour increments up to 10 hours, then by 1 hour increments up to 24 hours. The control will count down the timer remaining until start (8, 7.5, 7, etc.). The Delay Start mode automatically selects cooling with maximum Fan Speed. The temperature maintained will be the same as previously set. To change the set temperature, press “COOL” then Up or Down arrows until the desired temperature is indicated on the display. After 5 seconds, the control will automatically change the display back to the hours remaining until the unit will start/stop. Turning the unit “ON” or “OFF” at any timer will cancel the Delay Start/Stop function. The delay Start/Stop feature will work until the unit either starts or stops. Once this has happened then the above steps have to be repeated again.

Air Conditioner Features
(continued)

HEATING FEATURE (on some models):

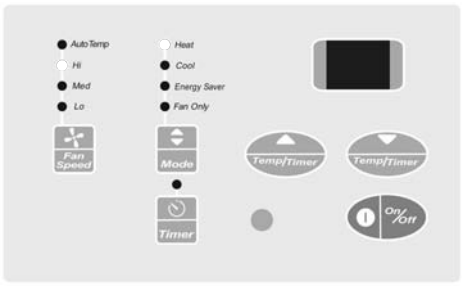


DO THIS:

PRESS
MODE BUTTON

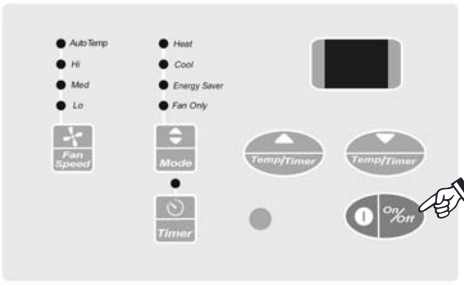
SELECT HEAT

YOU WILL SEE:



Note: This feature can be used with any combination of FAN Speeds, Timer, or Sleep Modes. When in the “Heat” Mode, the fan will run continuously while heat is needed. The temperature will automatically be maintained anywhere between 55°F (13°C) and 80°F (27°C). When the room set temperature is satisfied, the fan will cycle off and on to circulate and sample the room air.

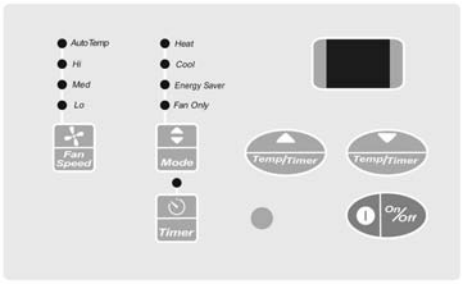
TO TURN UNIT OFF:



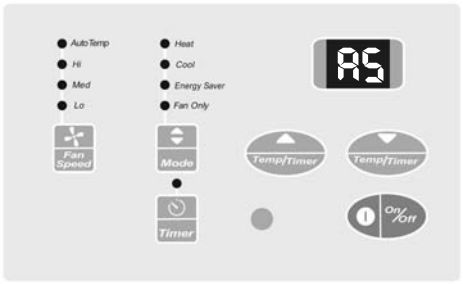
DO THIS:

PRESS
ON/OFF BUTTOT

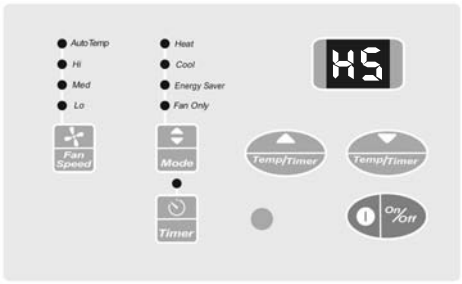
YOU WILL SEE:



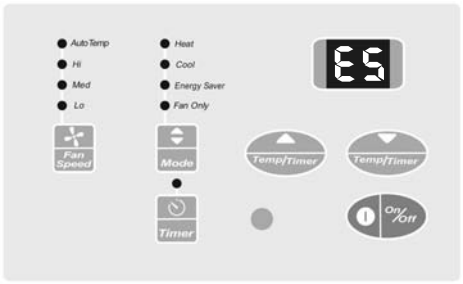
FAULT CODES



If the display reads “AS”, a sensor has failed.



If the display reads “HS”, a sensor has failed.



If the display reads “ES”, a sensor has failed.

ADDITIONAL THINGS YOU SHOULD KNOW

Now that you have mastered the operating procedure, here are more features in your control that you should know.

- The Remote Control will operate all the control panel features, follow the same instructions.
- **The "Cool "circuit has an automatic 3 minute time delayed start if the unit is turned off and on quickly. This prevents overheating of the compressor and possible circuit breaker tripping. The fan will continue to run during this time.**
- The control will maintain any set temperature between 60F and 90F degrees (cooling), 55F and 80F (heating).
- The control is capable of displaying temperature in degrees Fahrenheit or degrees Celsius. To convert from one to the other, press and hold the Up and Down Temperature Selection Pads at the same time for 3 seconds.

COMPRESSOR
The compressor is hermetically sealed, permanently lubricated and requires no additional oiling.

FRONT PANEL AND GRILLE
The front panel and grille can be cleaned with a mild soap or detergent. Do not use hydrocarbon-based cleaners (e.g. acetone, benzene, naphtha, gasoline, etc.) to clean the front panel or grille. Use care when cleaning the control area. Do not use an excessively wet cleaning cloth.

SCHEDULED MAINTENANCE
To achieve continuing top performance and high efficiency, a regular cleaning/inspection schedule must be established. Maintaining this schedule can be accomplished by either a local maintenance staff or an authorized servicer and must follow the instructions described in this manual.

- If the unit is operated in a dusty climate, dust may collect in the basepan and clog the condenser coil. It is advisable to remove the unit from the sleeve and thoroughly clean the basepan and condenser coil on a periodic basis.
- If the unit is installed ocean side or in a corrosive atmosphere, its life may be greatly reduced by the corrosive environment. Under these conditions, the unit should be removed from the sleeve and completely cleaned once a year. At that time any scratches or blisters on the painted surfaces should be sanded and repainted.

OUTDOOR COIL CLEANING
The coils on the outdoor side of the air conditioner should be checked regularly. For cleaning outside coil, remove the 6 screws that mount the condenser coil top cover to condenser shroud.

Normal Operating Sounds and Conditions

POPPING OR GURGLING SOUNDS
This sound is the refrigerant traveling through the lines. This is a normal sound which may be heard for a few seconds after the unit shuts off.

WATER TRICKLING SOUNDS
This sound is produced by the water as it is picked up and run over the coils. This procedure improves the efficiency of the unit and helps with water removal.

WATER DRIPPING
Water will collect in the basepan during high humidity days.

STARTING DELAY
You may notice a short delay in the startup if you try to restart the unit too soon after turning it off or if you adjust the thermostat right after the compressor has shut off. This delay protects the compressor.

Obtaining Service
In the unlikely event this unit requires repair or servicing beyond what is covered in this manual, contact an authorized service organization.

To obtain an authorized servicer, contact your sales representative or agency.

Specifications

Model	KTW-08	KTW-10	KTW-12	KTW-12H
Power Supply (Ph-V-Hz)	1/115V/60Hz	1/115V/60Hz	1/115V/60Hz	1/230V-1/208V/60Hz
Dehumidifying Volume (pt/day)	53	63	76	76
Rated Cooling Capacity (BTU/h)	8000	10000	11600	11600/11200
Rated Heating Capacity (BTU/h)	N/A	N/A	N/A	11000/9000
Cooling Power Input (Wattage)	851	1065	1230	1230/1200
Heating Power Input (Wattage)	N/A	N/A	N/A	3400/2800
Rated Current Cooling (Amperage)	7.5	9.35	10.8	5.4/5.8
Rated Current Heating (Amperate)	N/A	N/A	N/A	14.8/13.5
EER/C.O.P	9.4	9.4	9.4	9.4
Noise Level dB (A) (H/M/L)	58/56/54	58/56/54	60/58/56	60/58/56
CFM	280	280	280	280
Design Pressure (PSIG) (H/L)	400 psi/170psi	400 psi/170psi	400 psi/170psi	400 psi/170psi
Dimension (W*H*D)	25.98x15.62x16.88	25.98x15.62x16.88	25.98x15.62x16.88	25.98x15.62x16.88
Packing Dimension (W*H*D)	29.64x18.22x24.4	29.64x18.22x24.4	29.64x18.22x24.4	29.64x18.22x24.4
Net/Gross Weight (Lb)	72.26/81.74	80.03/89.51	82.0/91.49	84.44/93.92
Refrigerant Charge (Oz)	R22/19.4	R22/22.63	R22/27.51	R22/27.51

Data Listed is preliminary and may be changed at anytime without notice.
Consult www.soleusair.com for updated performance specifications.

Warranty

Soleus International Inc. warrants the accompanying Soleus Air Thru-the -Wall Room Air Conditioner (Models: KTW-08/10/12/12H) to be free of defects in material and workmanship for the applications specified in its operation instruction for the period of parts specified below .

5 YEARS FOR COMPRESSOR
1 YEAR FOR OTHER COMPONENTS

This warranty shall not apply to broken or marred cabinets, accessories, knobs, filters or routine maintenance. This warranty does not apply to uncrating, setup, installation, removal of the product for repair or reinstallation of the product after repair.

This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of Soleus International including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage, fire, flood or other Acts of God, or normal wear and tear.

Warranty service must be performed by a qualified HVAC contractor. Soleus maintains a centralized service network to provide parts and assist in resolving service problems if difficulties are encountered. Soleus agrees to provide service information, sell repair parts and reimburse the dealer /serviceman for parts in accordance with Soleus International's Policies and Procedures.

SOLEUS INTERNATIONAL MAINTAINS THAT ALL WARRANTIES, INCLUDING IMPLIED WARRANTY OR MERCHANTABILITY ARE LIMITED TO THE TERMS AND CONDITIONS SPECIFIED ABOVE. SOLEUS INTERNATIONAL DISCLAIMS ANY LIBILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES AND IN NO EVENT SHALL SOLEUS INTERNATIONAL INC.'S LIABILITY EXCEED THE RETAIL VALUE OF THE AIR CONDITIONER.

This warranty covers only new products purchased from our authorized dealers or retailers. It does not cover internet sales, used, salvaged, or refurbished products.

FOR TECHNICAL SUPPORT AND WARRANTY SERVICE

Soleus International Inc.
20035 E. Walnut Dr , North ,
City of Industry , CA 91789
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Email: Contact@soleusair.com
Website: www.soleusair.com